

# **SLOVENIAN EU ACCESSION –EVALUATION OF THE MACROECONOMIC IMPLICATIONS FOR THE AGRO-FOOD SECTOR**

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## **INTRODUCTION**

The approaching Slovenia's accession to the European Union in 2004 will be one of the biggest challenges the country has experienced so far. During the pre-accession period Slovenia has harmonised the majority of the legal system, however economic environment still differs from the expected conditions after the accession. Among the sectors that the integration will impose radical changes of the economic environment is certainly the Slovenian agro-food industry. The research presented in the paper applies a "vertical perspective" evaluating simultaneously expected macroeconomic and agro-policy environment after the accession. For this purpose a Computable General Equilibrium model of the Slovenian agro-food industry "GEMSAF" was developed.

## **MATERIAL AND METHODS**

A Computable General Equilibrium model (CGE) may be defined as a consistent framework of linkages among multisector production structure, composite supply, balance of payments, patterns of demand, income formation and distribution. Model incorporates a set of non-linear equations describing the economic behaviour of the identified agents and technological, budget and institutional constraints they are facing. In CGE models markets for goods, factors, and foreign exchange are assumed to respond to changing demand and supply conditions that are in turn affected by government policies and the external environment (Dixon and Parmenter, 1996; Robinson, 1989). Data input for CGE models is a Social Accounting Matrix (SAM) which can be viewed as an extension of an input-output table that includes income and expenditure flows between the economic agents (Sadoulet, de Janvry, 1994).

The "GEMSAF" model follows the standard neoclassical formulation and structure as defined by Robinson (1989). Despite its standard empirically oriented structure "GEMSAF" includes some additional features in order to adequately address the research questions and country specifics. Among the most important features are explicit modelling of two types of subsidies in agriculture and export subsidies to food processors. Further, the model imposes horizontal segmentation of the factors introducing mobility restriction between agriculture and other sector of the economy. In order to simulate expected Slovenian integration into the EU internal market all transactions with the rest of the world are modelled through two regions (EU 24 and ROW). The "GEMSAF" model is calibrated to the SAM of Slovenia for the year 2000 including 29 production/commodity accounts ten of them agricultural, twelve food processing and the rest of the economy aggregated into seven accounts.

## **RESULTS**

Experiments with the "GEMSAF" model involved comparative static simulation of the post accession economic environment in Slovenia focused primarily on agriculture and food industry. Results from the base-run were exposed to the postulated exogenous shocks including: (a) custom union with the EU - 25, (b) import and export price changes due to the transaction cost effect (three sub-scenarios), (c) application of the negotiated CAP financial package for Slovenia (three sub-scenarios of absorption), (d) export subsidy regime for agro-food products (three sub-scenarios of absorption). Simulations of the Slovenian EU accession with the "GEMSAF" revealed some apparent trends. Effects on aggregate production and value added in agriculture are rather insignificant with some intrasectoral restructuring whereas the food processing sector shows decrease of both indicators. The most perceivable sectoral changes are growth for sugar beet, other crop products (mainly fodder crops) and beef and small ruminants aggregate, while deterioration is expected for milk processing, vine industry and to the lesser extent non-alcohol production and meat processing. Foreign trade reduction and reorientation is another evident effect of the accession. In macroeconomic terms (e.g. GDP, absorption) results suggest rather limited changes of overall economic welfare due to the accession.

## **DISCUSSION AND CONCLUSIONS**

Several studies conclude that Slovenian agro-food chain is of rather low competitiveness (FAO, 1998; Erjavec and Kuhar, 2000; OECD, 2001) what will result in unfavourable EU accession outcomes. However, results from the "GEMSAF" model clearly distinguish that situation in agriculture will not deteriorate also under the less optimistic scenarios (lower absorption of CAP funds, price decrease), whereas integration will have evident unfavourable effects for the majority of the food processing sectors. Application of the CAP with national topping up of direct payments will form a stimulating environment for agriculture while food industry

(especially dairy and vine) will face intensive competitive pressures at the domestic market and changed conditions for export to the traditional destinations (cut of export subsidies, abolishment of free trade agreements). Moreover, upstream negative effect transmissions will reduce potential benefits from accession due to low competitiveness and restructuring lags of the food industry.

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